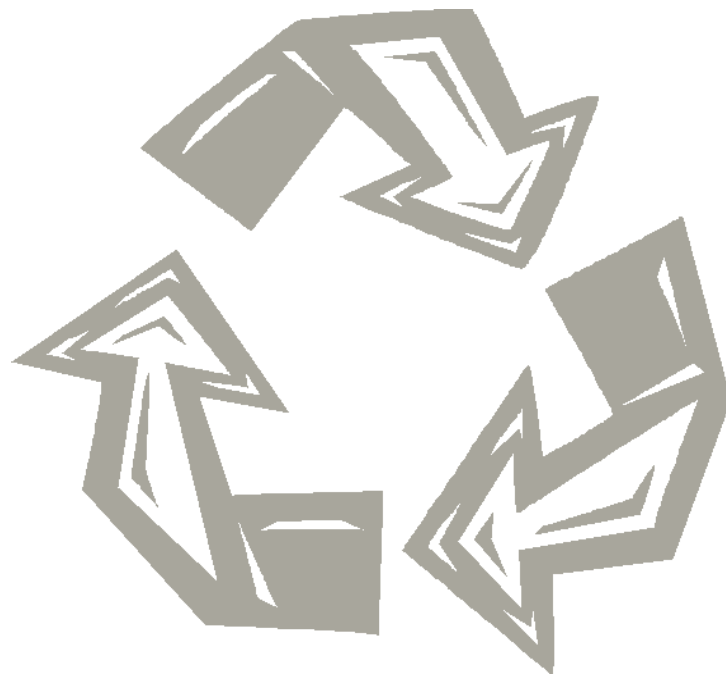


# **RECYCLING AND COMPOSTING IN KALAUPAPA, HI**

## **A HOW-TO GUIDE**

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## **INTRODUCTION**

Our earth and environment provide us with the systems and resources necessary for life and well-being. Resources such as water, land, oil and metal are finite and becoming limited with growing needs for an increasing human population. Ecological cycles, such as air, water and nutrient cycle are becoming stressed with human impact. The water that we draw out of the ground for household and agricultural use means less water for animals and vegetation; the fossil fuels we use to run our cars and power our homes emit greenhouse gases that are causing global warming and health problems such as asthma. The hazardous chemicals we use to paint, clean, or maintain our cars eventually enters our soil, water and our bodies if not handled properly. The negative impact of human actions can be seen through pollution and the loss of certain resources

Two ways to conserve natural resources and protect the environment is by recycling used materials and composting food scraps. Recycling prevents extraction of virgin materials. Re-using old material saves fuel, electricity, water and prevents ecological disruption. Composting allows nutrients to re-enter the soil and is an excellent natural fertilizer for gardening.

## **RECYCLING AND COMPOSTING IN KALAUPAPA**

The landfill in Kalaupapa has closed. Without a landfill in the settlement, trash must be transported by airplane to a landfill on Oahu. To minimize the amount of trash in Kalaupapa, the National Park Service chose to begin a recycling and composting program. Recyclable materials are collected curbside at all households and offices in the settlement. The materials are collected over the year and are eventually shipped to Oahu on the return barge each summer. Composting is also collected curbside, similarly to recycling, but the whole composting process is completed in the settlement.

## **INTENDED AUDIENCE**

The target audience of this handbook includes all patients and employees who live and/or work in Kalaupapa, HI. It is also written to help guide volunteers, visitors and guests. The success of recycling and composting is dependent on education and participation. The community is encouraged to utilize the recycling and composting services available. Please share this document with others so that Kalaupapa can achieve maximum collection of recyclable and compostable waste.

## **CONTACT INFORMATION**

For questions or suggestions regarding this handbook or the recycling and compost programs, please contact the Kalaupapa National Historical Park Recycling Division at:

Simon Anderson  
Community Sustainability Intern  
Kalaupapa National Historical Park  
Phone: (808) 567-6802 ext. 1313

## RECYCLING

Recycling creates new materials out of waste and reduces the need to extract virgin materials. Many things you see in your home have already been recycled. For instance, egg cartons are made from recycled paper. Many of the picnic tables and benches in Kalaupapa are made from recycled plastic.

## WHY IS RECYCLING IMPORTANT?

When paper, metals, and plastic are extracted from the environment there is an associated devastation of ecological qualities. Removing trees results in lower quality air, mining for metals harms land and water quality, and the creation of petroleum-based products such as plastic, contributes to global warming. If we re-use materials already created, then the environmental and fiscal costs to extract virgin materials are reduced or eliminated. If we divert waste into the recycling stream, then there is less material entering landfills or incinerators.

## WHAT IS RECYCLABLE?

The recyclables collected in Kalaupapa reflect the materials that the recycling industry in Oahu can process. **You CAN RECYCLE the following items:**

- Aluminum cans
- Tin cans (food cans)
- Glass bottles and jars
- Plastic drink bottles and containers labeled with a #1 or #2 on the bottom
- Office paper
- Shredded paper (please bag)
- Newspaper and inserts
- Magazines
- Envelopes (with plastic window removed)
- Cardboard
- Paperboard (like cereal boxes or toilet paper rolls)
- Egg Cartons (these are not recycled, but we collect & compost them)
- Alkaline batteries \*
- Rechargeable batteries\*
- Car batteries\*
- Fluorescent light bulbs\* (compact and tube style)

**Non Recyclable items include:**

Styrofoam plates or packaging  
Aluminum foil and trays (can be recycled if they have no food residue and have been washed)  
Plastic knives, forks, spoons (can be washed and reused)  
Plastic baggies (can be washed and reused)  
Plastic wrap  
Tissue paper (put in compost pail)  
Paper plates  
Paper towel (put in compost pail!)  
Packing Peanuts (biodegradable cornstarch peanuts OK if bagged)  
Incandescent light bulbs

It is important for collected items to be clean.

Drink and food containers should be fully rinsed and emptied.

Paper and cardboard items are only recyclable if dry and without food residue.

\*These items are considered hazardous waste and have special regulations for disposal. Please arrange a pick-up with the recycling division.

**HOW, WHERE AND WHEN TO RECYCLE**



Each house in Kalaupapa should have four receptacles:

Container recycling, paper products, Trash and Compost.

The containers for recycling and trash should be three grey 50 gallon drums like the one pictured to the right. The compost should be deposited in the 5 gallon white bucket.

If you need one of these containers, please let one of the people in the recycling department know.

Curbside collection occurs every Monday and Thursday morning (no collection on Federal Holidays). In the event of a federal holiday, recycling pick up will occur the day before or after the holiday.

Each residence and office is to place the recycling, trash and compost outside near road for pick-up. Large items that don't fit inside the recycling bin (e.g. cardboard boxes) can be placed next to the bin. Arrangements can be made for special pick-up of heavy items such as scrap metal, car batteries, appliances or large quantities of cans and glass bottles. Please let someone in the NPS Recycling Department know if you need assistance or personalized pickup.

The National Park Service is also responsible for picking up the following items:

Green Waste (pick up will be on Mondays and Thursdays)

Household Items (Please arrange for pick up)

Old Clothing (Please arrange for pick up)

Appliances (Please arrange for pick up)

## **WHAT HAPPENS TO THE RECYCLABLES?**

After recyclables are collected in the settlement, they are brought to the park's recycling facility. Here, all of the materials are sorted on a conveyor belt, with recyclables being sorted by type of material (glass, aluminum, paper, etc. all placed into separate bins) and non-recyclable items are removed. Once a substantial amount of a material is collected it is compacted into a large, dense cube and tied up into a bale. Twenty-foot storage containers hold the bales until it is time for everything to be removed via barge in the summer.

The recyclables are shipped to Oahu each summer on the annual barge. Recycling companies pick up the recyclables from Kalaupapa at the pier and process them for manufacturing into "new" goods.

## **COMPOSTING**

Composting is the process of creating a nutrient-rich soil additive out of "organic" materials. Organic materials are those that derive from living life (e.g. vegetables and animals), as opposed to "inorganic" materials, which are of a mineral rather than a biological origin (e.g. metals).

There are several varieties of compost. Some include animal manure, sewage, or large yard waste. Others use worms for decomposing of food waste. At Kalaupapa, we are currently only collecting household food waste and the composting occurs inside mechanized "Earth Tubs."

## **WHY IS COMPOSTING IMPORTANT?**

Nutrients move through nature cyclically. The nutrients in the food we eat are generated by soil. Conversely, the food waste we produce can add nutrition back into the soil. Landfilling food waste hinders this cycle. For instance: if potato peelings get thrown into a garbage bag and then into a landfill, the nutrients become trapped. Essentially, the land gets robbed of nutrition when food scraps are thrown away rather than composted. To get full benefit from food waste, it should be composted into a usable soil additive. It saves landfill room and helps promote a natural cycle of nutrient exchange.

Landfills also release methane (a greenhouse gas) as rubbish decomposes. When food waste is composted, the would-be methane from its attendance is avoided.

Wasting food is not encouraged, so please buy perishable food with consideration. When food has gone rotten or has no other use, then composting is the best management approach.

## **WHAT IS COMPOSTABLE?**

Technically, anything "organic" (meaning plant or animal material) can be composted. We have some limitations, so please review what can and cannot be composted below.

**The following items ARE COMPOSTABLE:**

- Vegetable trimmings
- Fruit peels
- Egg shells
- Leftovers
- Rotten food
- Small amounts of fish or animal bones and meat (e.g. shrimp tails, chicken wings, but not a whole carcass)
- Coffee grindings
- Tea bags and coffee filters
- Non-treated paper towel and paper napkins
- Paper plates WITHOUT wax or plastic coatings
- Shredded paper

**The following items are NOT COMPOSTABLE:**

- Plastic
- Styrofoam
- Aluminum foil or other metals
- Waxed paper
- Pet waste
- Anything “inorganic” (not derived from plant or animal material)



**HOW, WHERE AND WHEN TO COMPOST**

A white five-gallon compost pail will be available where you are living. Put your compostable wastes inside. If you have a door by your kitchen, it might be best to store your pail outside to avoid ants inside. Your compost pail will be emptied early on Monday and Thursday mornings by the recycling workers. After your pail has been emptied, you'll probably want to give it a rinse and/or scrub to discourage pest infestation.

If you need a second or larger pail, please contact the recycling crew.

**WHAT HAPPENS TO THE COMPOST?**

The park operates two large-capacity “Earth Tubs.” Collected food waste is mixed in the tubs with wood chips and water. Once a tub is full, no more food waste is added and it sits for a month. Then it is removed and set in an outside bunker to “cure” for one more month. Finally, a sample is sent to a lab to be tested for harmful bacteria before it can be used. Once the process has completely finished, the compost will be available for application in yards and gardens in Kalaupapa.

## **OTHER OPPORTUNITIES FOR RESPONSIBLE WASTE MANAGEMENT**

Recycling is one component of the famous environmental catch-phrase, “Reduce, Reuse, Recycle,” and it is the last step on the course to responsible waste management. We first need to reduce waste at the source by reducing consumption and purchase of things we don’t need; then make sure the items we do purchase are reusable; and lastly, when a product has met the end of its life, it should be recycled if possible.

### **REDUCE MATERIALS BROUGHT INTO KALAUPAPA**

Don’t buy individually-wrapped items or disposal items when there are reusable alternatives or alternatives with less packaging.

Use reusable bags when shopping.

Don’t buy something if you don’t really need it.

Remove yourself from Catalog lists at <http://www.catalogchoice.org/>

### **USE DURABLE, REPAIRABLE AND EASILY REPLACABLE ITEMS**

Purchase equipment that has repairable or replaceable parts, so the whole unit does not have to be thrown out. Look for high quality items that can withstand wear and tear.

### **USE WASHABLE FOOD SERVICE MATERIALS AND DON’T USE DISPOSABLES**

Trash from Styrofoam plates and plastic utensils can easily add up at potlucks and social events. The National Park owns over 100 sets of washable plates, drinking cups and flatware. Please plan ahead and arrange to use this reusable dinnerware. With a few volunteers, dishes can go very quickly! Or, bring your own flatware and a Tupperware container. Then you can eat out of the Tupperware, and will have your own take home container ready to go.

### **ENVIRONMENTALLY PREFERABLE PURCHASING**


Even if you recycle, buying recycled products is equally important because it “closes the loop.” It supports Kalaupapa’s recycling efforts by encouraging the recycled materials market. If you are purchasing items for the park, make sure you meet the EPA’s comprehensive procurement guidelines ([www.epa.gov/cpg](http://www.epa.gov/cpg)). For instance, all paper must have a recycled content of at least 30%.

## **NOW IT IS UP TO YOU**

Over time, remembering what can be recycled and composted becomes easier as habits develop. Don’t hesitate to contact the NPS Recycling Department with any questions!

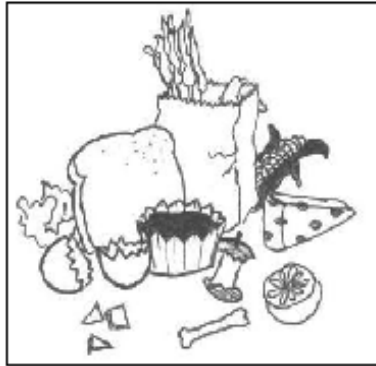
## **ATTACHMENTS**

Use the following signs and charts around your home as reminders.

<div> <div>Recyclables</div>  </div>		<div> <div>Compost</div> <div>IN the bin:</div> </div>	
<div> <div>Containers</div> <div>IN the bin:</div> </div>	<div> <div>Paper</div> <div>IN the bin:</div> </div>	<div> <div>Trash</div> <div>IN the bin:</div> </div>	
<ul style="list-style-type: none"> <li>Remove all lids</li> <li>Empty &amp; rinse all containers</li> <li>Don't use trash bag</li> </ul> <div> <div>IN</div> <div>OUT</div> </div> <ul style="list-style-type: none"> <li>Aluminium cans</li> <li>Plastic marked #1 and #2</li> <li>Glass bottles and jars</li> <li>Metal food cans</li> <li>Aerosol cans</li> <li>Metal jar lids, bottle caps (detached from containers)</li> </ul>	<ul style="list-style-type: none"> <li>Keep paper products dry</li> <li>Place shredded paper in separate bag</li> <li>No napkins or tissue paper</li> <li>Don't use trash bag</li> </ul> <ul style="list-style-type: none"> <li>Cardboard, cereal boxes, etc.</li> <li>Packing paper and paper bags</li> <li>Rolls from paper towel &amp; toilet paper</li> <li>Office paper, folders, envelopes</li> <li>Newspaper</li> <li>Magazines &amp; catalogs</li> <li>Shredded paper</li> </ul>	<ul style="list-style-type: none"> <li>Biodegradable food</li> <li>Don't use trash bag</li> </ul> <ul style="list-style-type: none"> <li>Fruit and vegetable trimmings</li> <li>Plate scrapings</li> <li>Leftovers</li> <li>Meat and cheese</li> <li>Rice, pasta, and starchy foods</li> <li>Eggshells</li> <li>Coffee grounds and filters</li> <li>Small amounts of bones &amp; grease</li> <li>Rotten food</li> <li>Paper towels and napkins</li> <li>100% paper plates</li> <li>Tea bags</li> <li>Other kinds of plastic-free paper contaminated with food waste</li> </ul>	
<div>Keep OUT:</div> <ul style="list-style-type: none"> <li>All Paper Products!</li> <li>Aluminium foil and pans</li> <li>Materials with food residue</li> <li>Milk &amp; juice cartons</li> <li>Styrofoam</li> <li>Plastic bags and wrappers</li> <li>Napkins, tissues, and soiled paper</li> </ul>	<div>Keep OUT:</div> <ul style="list-style-type: none"> <li>Aluminium foil and pans</li> <li>Materials with food residue</li> <li>Milk &amp; juice cartons</li> <li>Styrofoam</li> <li>Plastic bags and wrappers</li> <li>Napkins, tissues, and soiled paper</li> </ul>	<div>Keep OUT:</div> <ul style="list-style-type: none"> <li>All Recyclables!</li> <li>Large amounts of bones or grease</li> <li>Plastic or Styrofoam plates or utensils</li> <li>Aluminium foil</li> <li>Plastic-lined or waxed paper products (e.g. milk cartons)</li> </ul>	<div>Keep OUT:</div> <ul style="list-style-type: none"> <li>Recyclables</li> <li>Compostable material</li> </ul>



# REMEMBER: SET OUT FOOD SCRAPS FOR COMPOSTING!



## ***WHAT CAN YOU COMPOST?***

<b>Fruit and veggie trimmings</b>	<b>Leftovers</b>	<b>Napkins &amp; paper towels</b>
<b>Starchy foods, like rice</b>	<b>Plate scrapings</b>	<b>Tissues</b>
<b>Meat and cheese</b>	<b>Rotten food</b>	<b>Coffee grounds &amp; filters</b>
<b>Small amts. grease &amp; bone</b>	<b>Eggshells</b>	<b>100% paper plates</b>

## ***WHY SHOULD YOU COMPOST?***

- About one-third of rubbish could actually be composted.
- Keeping food waste separate means trash is lighter and less messy.
  - Without the Kalaupapa Landfill it is imperative to separate compost from trash.
- Composting food waste creates a useful product for yards and gardens. The finished compost will eventually be available for Kalaupapa gardens, and will release the nutrients and organic qualities back into soil.



**Set compost container out for pick up on MONDAY and THURSDAY  
Mahalo for participating!**